

U.S. Patent Application Serial No. 10/796,452
Reply to Office Action dated: December 15, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Claim 6 is new.

Listing of Claims:

1. (Original) A magnetostriction-type torque sensor comprising:

a shaft formed of a magnetic material and provided with at least a magnetostrictive film;

an exciting coil for exciting the magnetostrictive film provided on the shaft;

a detection coil for detecting a change in a magnetic field; and

yoke portions respectively provided around outer peripheries of the exciting coil and the detection coil; and

magnetic shield section formed of a magnetic material provided around the outer periphery of the yoke portion.
2. (Original) The torque sensor according to claim 1, wherein the magnetic shield section is formed of a magnetic material exhibiting a low coercive force characteristic.
3. (Original) The torque sensor according to claim 1, wherein

a predetermined distance is provided between the magnetic shield section and the yoke portion.

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4. (Original) The torque sensor according to claim 1, wherein

the magnetic shield section is disposed parallel to the shaft so as to uniformly impart a magnetic effect from an outside world to the shaft.

5. (Original) The torque sensor according to claim 1, wherein

the torque sensor is mounted as a sensor for detecting a torque occurring in a steering system of a vehicle having an electric power steering apparatus.

6. (New) A magnetostriction-type torque sensor comprising:

a shaft formed of a magnetic material and provided with at least a magnetostrictive film;

an exciting coil for exciting the magnetostrictive film provided on the shaft;

a detection coil for detecting a change in a magnetic field; and

yoke portions respectively provided around outer peripheries of the exciting coil and the detection coil; and

a magnetic shield section covering an entire torque sensor.